(SECTION – B)

Q.6. (a) A man is now 3 times as old as his son. In ten (10) years time, the sum of their ages will be 76. How old was the man when his son was born? (5)

(b) How many tiles of $20cm^2$ will be required to have a footpath 1m wide carried around the outside of grassy plot 24m long and 14m broad? (5)

(c) Mr. Faheem has dinner with his family at a restaurant which offers a 10% discount on food. The marked price of the food that they order was Rs.15000/-. Given that there was a service charges of 10% and GST is 17%, calculate the total amount of money he has to pay. (5)

(d) Mr. Khawaja walked for 45 minutes at the rate of 3km/h and then ran for half an hour at a certain speed. At the end of that time he was 6km away from the starting point. How fast did he run? (5)**(20)**

Yes, the structure and the presentation of the answers is good

Section - B

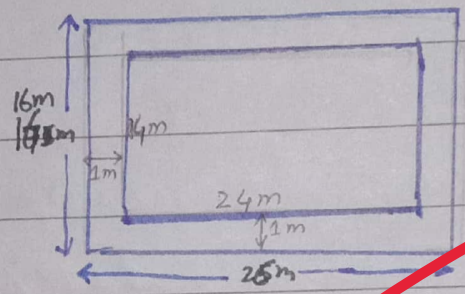
Day: Date:

Q6

(b) Tiles of $20cm^2$ required for 1 meter wide footpath around the 24m long and 14m broad grassy plot

Solution

Area of footpath = Total Area - Area of Grassy plot



Area of Grassy plot = Length × Width

$= 24 \times 14$

$= \boxed{336\ m^2}$

Total Area of plot = Length × Total Width

$= 16 \times 26$

$= \boxed{416\ m^2}$

Area of footpath = $(416 - 336)\ m^2$

$= 80\ m^2$

Total Tiles required = $\frac{\text{Area of footpath}}{\text{Area of Tile}}$

$= \frac{80\ m^2}{20\ cm^2}$

$= \frac{80\ m^2 \times 100 \times 100}{20\ m^2}$ ∴ Convert cm into m

$= 40000$

Day: Date:

(Number of Tiles required = 40000)

Answer

(C) Total amount of money paid by Faheem for dinner at a restaurant

Given Data

Marked Price of the Food = RS 15000/-

Discount on the Food = 10%.

Service Charges on the Food = 10%.

GST on the Food = 17%.

Required

Total Money Paid by Faheem = ?

Solution

Total Discount on food = Marked Price × Discount

$= 15000 \times \frac{10}{100}$

Discount = RS 1500/-

Price after Discount = 15000 - 1500

= (RS 13500/-)

Service Charges on food = $13500 \times \frac{10}{100}$

= 1350/-

GST on food = $13500 \times \frac{17}{100}$

= 2295/-

Total Amount paid for dinner = Price after discount + Service Charges + GST

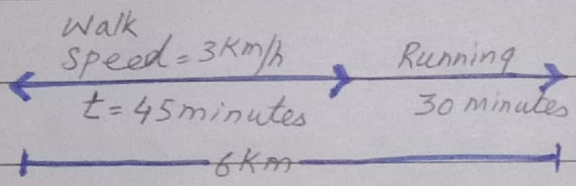
= 13500 + 1350 + 2295

= RS 17145

Total Amount paid by Faheem for dinner is RS 17145/-

(5)

To find the Fastness/Speed of run of Mr. Khawaja



Distance covered while walking ⇒ (S)

S = Speed x time taken

= 3 Km/hour x 45 minutes

$= \frac{3\text{Km}}{60\text{minutes}} \times 45\text{ minutes}$

$= \frac{3}{\cancel{60}_{\cancel{20}_{4}}} \times \overset{9}{\cancel{45}}\text{ Km} = \frac{9}{4}\text{ Km}$

= 2.25 Km

Distance left for running in 45 minutes = Total Distance − Walked Distance

= 6Km − 2.25 Km

= 3.75 Km

Very good answers!

Date:

Time taken while running = 30 minutes = $\frac{30}{60}$ hour

= 0.5 hour

~~Walking Dis~~

Running Speed = $\frac{\text{Distance Covered}}{\text{Time taken}}$

= $\frac{3.75 \text{ Km}}{\frac{3}{4} \text{ hour}}$

= $\frac{3.75 \times 4}{3}$ Km/hour

= $\frac{3.75 \text{ Km}}{0.5 \text{ hour}}$ = 7.5 Km/hour

Khwaja run at the speed of 7.5 Km/hour.

5

Q8

(b) Finding